

This listing of claims will replace all prior versions, and listings, of claims in the application:

1           1. (currently amended) A camera control apparatus  
2 comprising:  
3           an image data receiving section for receiving from an  
4           image transmitter image data captured by cameras;  
5           an image data playback section for displaying the  
6           received images display, on a screen, ~~the received~~  
7           images;  
8           a camera control area display section for displaying  
9           camera symbols[[,]] which correspond to information  
10           representing the locations of the cameras[[,]] and  
11           the directions in which the cameras are  
12           oriented[[,]] as a control region for controlling  
13           the cameras connected to the image transmitter;  
14           a command load section for loading the coordinates of a  
15           location in the control region designated by an  
16           operator;  
17           a camera-to-be-operated determination section for  
18           determining a camera optimal for shooting the  
19           designated location;  
20           a control command conversion section for converting  
21           information about the coordinates loaded by the  
22           command load section[[,]] into a control command  
23           signal capable of being used for controlling the  
24           cameras; and  
25           a control command transmission section for transmitting  
26           the converted control command signal to the image  
27           transmitter, wherein  
28           said camera-to-be-operated determination section  
29           determines a camera to be panned on the basis of an  
30           angle between an imaginary line connecting the  
31           center of the camera symbol with the designated  
32           location and the direction in which the camera is  
33           currently oriented.

1           2. (canceled)

1           3. (currently amended) The camera control apparatus as  
2 defined in claim 1, further comprising an employable camera  
3 survey section which stores information about the positions of  
4 ~~impediments~~ obstructions existing in the ~~area~~ line of sight to  
5 be shot by the plurality of cameras and which eliminates a  
6 camera ~~incapable of~~ undesirable for shooting the designated  
7 location from candidates considered by the camera-to-be-  
8 operated determination section.

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1           4. (currently amended) The camera control apparatus as  
2 defined in claim 3, wherein, in the event of presence of an  
3 ~~impediment~~ obstruction of the view between the area to be shot  
4 and one or more of the cameras in the area where the cameras  
5 are disposed, the ~~impediment~~ obstruction is displayed.

1           5. (currently amended) ~~The~~ A camera control apparatus ~~as~~  
2 ~~defined in claim 1, further~~ comprising:  
3       an image data receiving section for receiving image data  
4       captured by cameras from an image transmitter;  
5       an image data playback section for displaying the  
6       received images on a screen;  
7       a camera control area display section for displaying  
8       camera symbols which correspond to information  
9       representing the locations of the cameras and the  
10       directions in which the cameras are oriented as a  
11       control region for controlling the cameras connected  
12       to the image transmitter;

13 a command load section for loading the coordinates of a  
14 location in the control region designated by an  
15 operator;  
16 a camera-to-be-operated determination section for  
17 determining a camera optimal for shooting the  
18 designated location;  
19 a control command conversion section for converting  
20 information about the coordinates loaded by the  
21 command load section into a control command signal  
22 capable of being used for controlling the cameras;  
23 a control command transmission section for transmitting  
24 the converted control command signal to the image  
25 transmitter;  
26. an angular-shift-time calculation section for calculating  
27 the time required for the camera to pan toward the  
28 designated location;  
29 a focus storage section for grasping the focus of a  
30 plurality of cameras; and  
31 a focus-shift-time calculation section for calculating  
32 the time required for the camera to attain a focus  
33 on the designated location,  
34 wherein the camera-to-be-operated determination section  
35 determines a camera which can shoot the designated  
36 location in the minimum time as a camera to be  
37 operated, on the basis of the time required for the  
38 camera to pan toward the designated location, as  
39 well as the time required for the camera to attain a  
40 focus on the designated location.

1 6. (original) The camera control apparatus as defined in  
2 claim 5, wherein there are displayed not only the direction in  
3 which the camera is oriented but also the focusing state of  
4 the camera.

1           7. (currently amended) ~~The A~~ camera control apparatus as  
2 ~~defined in claim 1, further~~ comprising:

3           an image data receiving section for receiving image data  
4           captured by cameras from an image transmitter;  
5           an image data playback section for displaying the  
6           received images on a screen;  
7           a camera control area display section for displaying  
8           camera symbols which correspond to information  
9           representing the locations of the cameras and the  
10           directions in which the cameras are oriented as a  
11           control region for controlling the cameras connected  
12           to the image transmitter;  
13           a command load section for loading the coordinates of a  
14           location in the control region designated by an  
15           operator;  
16           a camera-to-be-operated determination section for  
17           determining a camera optimal for shooting the  
18           designated location;  
19           a control command conversion section for converting  
20           information about the coordinates loaded by the  
21           command load section into a control command signal  
22           capable of being used for controlling the cameras;  
23           a control command transmission section for transmitting  
24           the converted control command signal to the image  
25           transmitter;  
26           a view-point direction survey section for storing the  
27           direction in which the operator desires to shoot the  
28           designated location,  
29           wherein the camera-to-be-operated determination section  
30           determines a camera to be operated, from information  
31           as to whether or not an image can be shot in the  
32           direction designated by the view-point survey  
33           section, as well as from the angle between the  
34           current shooting direction of the camera and the  
35           direction of an imaginary line connecting the  
36           designated location with the center of the camera  
37           symbol.

1           8. (original) The camera control apparatus as defined in  
2 claim 7, wherein there is displayed information about the  
3 direction in which the operator desires to shoot.

1           9. (currently amended) ~~The~~ A camera control apparatus ~~as~~  
2 ~~defined in claim 1, further~~ comprising:

3           an image data receiving section for receiving image data

4           captured by cameras from an image transmitter;

5           an image data playback section for displaying the

6           received images on a screen;

7           a camera control area display section for displaying

8           camera symbols which correspond to information

9           representing the locations of the cameras and the

10           directions in which the cameras are oriented as a

11           control region for controlling the cameras connected

12           to the image transmitter;

13           a command load section for loading the coordinates of a

14           location in the control region designated by an

15           operator;

16           a camera-to-be-operated determination section for

17           determining a camera optimal for shooting the

18           designated location;

19           a control command conversion section for converting

20           information about the coordinates loaded by the

21           command load section into a control command signal

22           capable of being used for controlling the cameras;

23           a control command transmission section for transmitting

24           the converted control command signal to the image

25           transmitter;

26           an angular-shift-time calculation section for calculating

27           the time required for the camera to pan toward the

28           designated location;

29           a zoom storage section for grasping the degree of zoom of

30           a plurality of cameras;

31 a zoom-shift time calculation section for calculating the  
32 time required for a camera to zoom in order to  
33 display an image of the designated range; and  
34 a zoom range display section for displaying, in the  
35 camera control region, a range to be zoomed,  
36 wherein the camera-to-be-operated determination section  
37 determines a camera to be operated, from the time  
38 required for the camera to pan toward the designated  
39 location after the operator has designated a desired  
40 range in the control region and the time required  
41 for the camera to zoom in or out for attaining focus  
42 on the designated range.

1 10. (original) The camera control apparatus as defined in  
2 claim 1, wherein an image captured by the camera selected by  
3 the camera-to-be-operated determination section is displayed  
4 greater than images captured by other cameras.

1 11. (original) The camera control ~~apparatus~~ method as  
2 defined in claim 13, wherein, when a camera most optimal for  
3 shooting the designated location is selected, an image  
4 captured by the thus-selected camera is displayed greater than  
5 images captured by other cameras.

1 12. (currently amended) ~~The A~~ camera control apparatus as  
2 ~~defined in claim 1,~~ further comprising:

3 an image data receiving section for receiving image data  
4 captured by cameras from an image transmitter;  
5 an image data playback section for displaying the  
6 received images on a screen;  
7 a camera control area display section for displaying  
8 camera symbols which correspond to information  
9 representing the locations of the cameras and the

10 directions in which the cameras are oriented as a  
11 control region for controlling the cameras connected  
12 to the image transmitter;  
13 a command load section for loading the coordinates of a  
14 location in the control region designated by an  
15 operator;  
16 a camera-to-be-operated determination section for  
17 determining a camera optimal for shooting the  
18 designated location;  
19 a control command conversion section for converting  
20 information about the coordinates loaded by the  
21 command load section into a control command signal  
22 capable of being used for controlling the cameras;  
23 a control command transmission section for transmitting  
24 the converted control command signal to the image  
25 transmitter; and  
26 a zoom-scale determination section for determining the  
27 zoom scale of each of the cameras which have been  
28 examined as being optimal for shooting the  
29 designated location by the camera to-be-operated  
30 determination section, in sequence in which the  
31 cameras are arranged.

1 13. (currently amended) A camera control method  
2 comprising steps of:  
3 displaying images captured by a plurality of cameras, a  
4 map relating to a location whose image is captured  
5 by the plurality of cameras, camera symbols  
6 representing the locations of the cameras in the  
7 map, and directions in which the cameras are  
8 oriented;  
9 selecting a camera optimal for shooting a location  
10 designated by an operator;  
11 and  
12 controlling the selected camera such that the camera is  
13 panned toward the designated location, wherein, from

14           among the plurality of cameras, there is selected a  
15           camera involving a minimum angle between the  
16           direction in which the camera is currently oriented  
17           and the imaginary line connecting the center of the  
18           camera symbol with the designated location.

1           14. (canceled) .

1           15. (original) The camera control method as defined in  
2           claim 13, wherein the camera which is blocked by an impediment  
3           and cannot shoot the designated location is eliminated from  
4           candidates for selection of a camera to be operated.

1           16, (original) The camera control method as defined in  
2           claim 15, wherein, in the event of presence of an impediment  
3           in the area where the cameras are disposed, the impediment is  
4           displayed.

1           17. (currently amended) ~~The~~ A camera control method as  
2           ~~defined in claim 13, comprising the steps of:~~  
3           displaying images captured by a plurality of cameras, a  
4           map relating to a location whose image is captured  
5           by the plurality of cameras, camera symbols  
6           representing the locations of the cameras in the  
7           map, and directions in which the cameras are  
8           oriented;  
9           selecting a camera optimal for shooting a location  
10           designated by an operator; and  
11           controlling the selected camera such that the camera is  
12           panned toward the designated location,  
13           wherein, from among the plurality of cameras, a camera  
14           which can shoot the designated location within the



15 minimum period of time is selected on the basis of  
16 the time required for the camera to pan toward the  
17 designated location from the direction in which the  
18 camera is currently oriented and the time required  
19 for the camera to zoom into the designated location,  
20 and the selected camera is panned toward the  
21 designated location and attains focus on the  
22 designated location.

1 18. (original) The camera control method as defined in  
2 claim 17, wherein there are displayed not only the direction  
3 in which the camera is oriented but also the focusing state of  
4 the camera.

1 19. (original) The camera control method as defined in  
2 claim 13, wherein cameras incapable of shooting an image from  
3 a direction desired by the operator are eliminated from  
4 candidates camera-to-be-operated.

1 20. (original) The camera control method as defined in  
2 claim 19, wherein there is displayed information about the  
3 direction in which the operator desires to shoot.

1 21. (currently amended) ~~The A camera control system as~~  
2 ~~defined in claim 13, method comprising the steps of:~~

3 displaying images captured by a plurality of cameras, a  
4 map relating to a location whose image is captured  
5 by the plurality of cameras, camera symbols  
6 representing the locations of the cameras in the  
7 map, and directions in which the cameras are  
8 oriented;

9           selecting a camera optimal for shooting a location  
10           designated by an operator;and  
11           controlling the selected camera such that the camera is  
12           panned toward the designated location,  
13           wherein, from among the plurality of cameras, there is  
14           selected a camera which can shoot the designated  
15           range within the minimum period of time, on the  
16           basis of the time required for the camera to pan  
17           toward a designated range from the direction in  
18           which the camera is currently oriented after the  
19           camera has received an instruction for designating a  
20           desired range from the operator, and the time  
21           required for the camera to attain focus on the  
22           designated range from the range on which the camera  
23           is currently focused, and the selected camera is  
24           panned toward the designated location, to thereby  
25           attain focus on the designated range.

1           22. (currently amended) ~~The camera control method as~~  
2           ~~defined in claim 13, A camera control method comprising the~~  
3           steps of:

4           displaying images captured by a plurality of cameras, a  
5           map relating to a location whose image is captured  
6           by the plurality of cameras, camera symbols  
7           representing the locations of the cameras in the  
8           map, and directions in which the cameras are  
9           oriented;  
10           selecting a camera optimal for shooting a location  
11           designated by an operator;  
12           and  
13           controlling the selected camera such that the camera is  
14           panned toward the designated location,  
15           wherein, when cameras optimal for shooting the designated  
16           location are selected, images captured by the  
17           cameras are displayed at respective scales, in  
18           sequence in which the cameras are arranged.